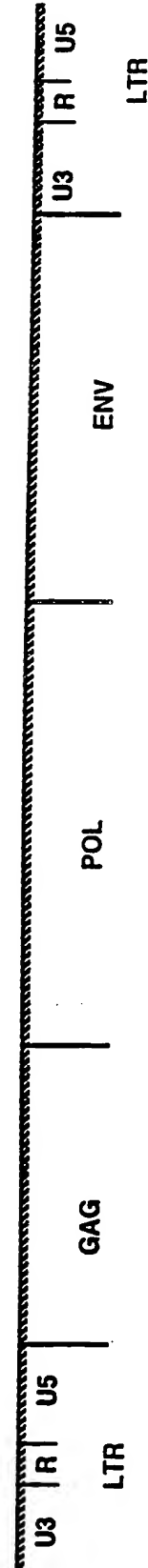
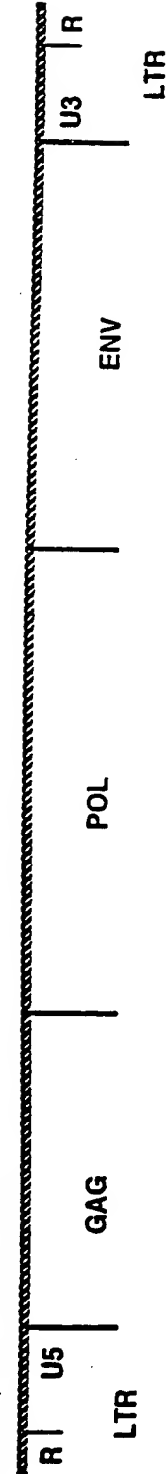


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FIG 1

PROVIRAL DNA



GENOMIC RNA (VIRION)



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## FIG 2

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GCTTATAGAA	GGACCCCTAG	TATGGGGTAA	TCCCCTCTGG	GAAACCAAGC	50
A Y R R	T P S	M G .	S P L G	N Q A	
L I E	G P L V	W G N	P L W	E T K P	
L . K	D P .	Y G V I	P S G	K P S	
CCCAGTACTC	AGCAGGAAAA	ATAGAATAGG	AAACCTCACA	AGGACATACT	100
P V L	S R K N	R I G	N L T	R T Y F	
Q Y S	A G K	I E .	E T S Q	G H T	
P S T Q	Q E K	. N R	K P H K	D I L	
TTCCTCCCCT	CCAGATGGCT	AGCCACTGAG	GAAGGAAAAA	TACTTTTACC	150
P P L	Q M A	S H .	G R K N	T F T	
F L P S	R W L	A T E	E G K I	L S P	
S S P	P D G .	P L R	K E K	Y F H L	
TGCAGCTAAC	CAACAGAAAT	TACTTAAAAC	CCTTCACCAA	ACCTTCCACT	200
C S .	P T E I	T . N	P S P N	L P L	
A A N	Q Q K L	L K T	L H Q	T F H L	
Q L T	N R N	Y L K P	F T K	P S T	
TAGGCATIGA	TAGCACCCAT	CAGATGGCCA	AATTATTATT	TACTGGACCA	250
R H .	. H P S	D G Q	I I I	Y W T R	
G I D	S T H	Q M A K	L L F	T G P	
. A L I	A P I	R W P	N Y Y L	L D Q	
GGCCTTTTCA	AAACTATCAA	GAAGATAGTC	AGGGGCTGTG	AAGTGTGCCA	300
P F Q	N Y Q	E D S Q	G L .	S V P	
G L F K	T I K	K I V	R G C E	V C Q	
A F S	K L S R	R . S	G A V	K C A K	
AAGAAATAAT					310
K K .					
R N N					
E I					

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~~FIG 2 (continued)~~  
 FIG 3A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CCCTGTAATCT	TTAACCTCCT	TGTTAAGTTT	GTCCTCTCCA	GAATCAAAC	50
P C I F	N L L	V K F	V S S R	I K T	
P V S	L T S L	L S L	S L P	E S K L	
L Y L	. P P	C . V C	L F Q	N Q N	
TGTAAACTA	CAAATTGTTT	TTCAAATGGA	GCACCAGATG	GAGTCCATGA	100
V K L	Q I V L	Q M E	H Q M	E S M T	
. N Y	K L F	F K W S	T R W	S P .	
C K T T	N C S	S N G	A P D G	V H D	
CTAAGATCCA	CCGTGGACCC	CTGGACCGGC	CTGCTAGCCC	ATGCTCCGAT	150
K I H	R G P	L D R P	A S P	C S D	
L R S T	V D P	W T G	L L A H	A P M	
. D P	P W T P	G P A C	. P	M L R C	
GTTAATGACA	TTGAAGGCAC	CCCTCCCGAG	GAAATCTCAA	CTGCACAACC	200
V N D I	E G T	P P E	E I S T	A Q P	
L M T	L K A P	L P R	K S Q	L H N P	
. . H	. R H	P S R G	N L N	C T T	
OCTACTATGC	CCCAATTTCAG	CGGGAAGCAG	TTAGAGCGGT	CATCAGCCAA	250
L L C	P N S A	G S S	. S G	H Q P T	
Y Y A	P I Q	R E A V	R A V	I S Q	
P T M P	Q F S	G K Q	L E R S	S A N	
CCCTCCCAAC	AGCACTTGGG	TTTTCCTGTT	GAGAGGGGGG	ACTGAGAGAC	300
S P T	A L G	F S C	. E G G	L R D	
P P Q Q	H L G	F P V	E R G D	. E T	
L P N	S T W V	F L L	R G G	T E R Q	
AGGACTAGCT	GGATTTCCTA	GGCCAACGAA	GAATCCCTAA	GCCTAGCTGG	350
R T S W	I S .	A N E	E S L S	L A G	
G L A	G F P R	P T K	N P .	A . L G	
D . L	D F L	G Q R R	I P K	P S W	

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FIG 3B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GAAGGTGACT	GCATCCACCT	CTAAACATGG	GGCTTGCAAC	TTAGCTCACA	400
K V T	A S T S	K H G	A C N	L A H T	
R . L	H P P	L N M G	L A T	. L T	
E G D C	I H L	. T W	G L Q L	S S H	
CCCGACCAAT	CAGAGAGCTC	ACTAAAATGC	TAATTAGGCA	AAAATAGGAG	450
R P I	R E L	T K M L	I R Q	K . E	
P D Q S	E S S	L K C	. L G K	N R R	
P T N	Q R A H	. N A N	. A K	I G G	
GTAAAGAAAT	AGCCAATCAT	CTATTGCCTG	AGAGCACAGC	GGGAGGGACA	500
V K K .	P I I	Y C L	R A Q R	E G Q	
. R N	S Q S S	I A .	E H S	G R D K	
K E I	A N H	L L P E	S T A	G G T	
AGGATCGGGA	TATAAACCCA	GGCATTGAG	CCGGCAACGG	CAACCCCTT	550
G S G	Y K P R	H S S	R Q R	Q P P L	
D R D	I N P	G I R A	G N G	N P L	
R I G I	. T Q	A F E	P A T A	T P F	
TGGGTCCCTT	CCCTTGTAT	GGGGCTCTG	TTTCACTCT	ATTCACTCT	600
G P L	P L Y	G R S V	F T L	F H S	
W V P S	L C M	G A L	F S L Y	F T L	
G S P	P F V W	A L C	F H S	I S L Y	
ATTAAATCTT	GCAACTGAA	AAAAAAAAAA	AAAAA		635
I K S C	N . K	K K K	K		
L N L	A T E K	K K K	K		
. I L	Q L K	K K K K	K		

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FIG 4A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ATGGCCCTCC	CTTATCATA	CTTTCTCTTT	ACTGTTCTCT	TACCCCTTT	50
M A L P	Y H T	F L F	T V L L	P P F	
W P S	L I I L	F S L	L F S	Y P L S	
G P P	L S Y	F S L Y	C S L	T P F	
CGCTCTCACT	GCACCCCTC	CATGCTGCTG	TACAACCAGT	AGCTCCCTTT	100
A L T	A P P P	C C C	T T S	S S P Y	
L S L	H P L	H A A V	Q P V	A P L	
R S H C	T P S	M L L	Y N Q	L P L	
ACCAAGAGTT	TCTATGAAGA	ACCGGGCTTC	CTGGAAATAT	TGATGCCCCA	150
Q E F	L . R	T R L P	G N I	D A P	
T K S F	Y E E	R G F	L E I L	M P H	
P R V	S M K N	A A S	W K Y	C P I	
TCATATAGGA	GTTTATCTAA	GGGAAACTCC	ACCTTCACTG	CCCACACCCA	200
S Y R S	L S K	G N S	T F T A	H T H	
H I G	V Y L R	E T P	P S L	P T P I	
I . E	F I .	G K L H	L H C	P H P	
TATGCCCCGC	AACIGCTATA	ACTCTGCCAC	TCTTTGCATG	CATGCAAATA	250
M P R	N C Y N	S A T	L C M	H A N T	
C P A	T A I	T L P L	F A C	M Q I	
Y A P Q	L L .	L C H	S L H A	C K Y	
CTCATTATTG	GACAGGGAAA	ATGATTAAATC	CTAGTTGTCC	TGGAGGACTT	300
H Y W	T G K	M I N P	S C P	G G L	
L I I G	Q G K	. L I	L V V L	E D L	
S L L	D R E N	D . S	. L S	W R T W	
GGAGCCACTG	TCTGTTGGAC	TTACTTCACC	CATACCAGTA	TGTTCTGATGG	350
G A T V	C W T	Y F T	H T S M	S D G	
E P L	S V G L	T S P	I P V	C L M G	
S H C	L L D	L L H P	Y Q Y	V . W	

FIG 4B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GGGTGGAATT	CAAGGTCAGG	CAAGAGAAAA	ACAAGTAAAG	GAAGCAATCT	400
G G I	Q G Q A	R E K	Q V K	E A I S	
V E F	K V R	Q E K N	K * R	K Q S	
G W N S	R S G	K R K	T S K G	S N L	
CCCAACTGAC	CCGGGGACAT	AGCACCCCTA	GCCCCTACAA	AGGACTAGTT	450
Q L T	R G H	S T P S	P Y K	G L V	
P N * P	G D I	A P L	A P T K	D * F	
P T D	P G T *	H P *	P L Q	R T S S	
CTCTCAAAAC	TACATGAAAC	CCTCCGTACC	CATACTCGCC	TGGTGAGCCT	500
L S K L	H E T	L R T	H T R L	V S L	
S Q N	Y M K P	S V P	I L A	W * A Y	
L K T	T * N	P P Y P	Y S P	G E P	
ATTTAATACC	ACCCTCACTC	GGCTCCATGA	GGTCTCAGCC	CAAAACCCTA	550
F N T	T L T R	L H E	V S A	Q N P T	
L I P	P S L	G S M R	S Q P	K T L	
I * Y H	P H S	A P *	G L S P	K P Y	
CTAACTGTTG	GATGTGCCTC	CCCCTGCACT	TCAGGCCATA	CATTTCAATC	600
N C W	M C L	P L H F	R P Y	I S I	
L T V G	C A S	P C T	S G H T	F Q S	
* L L	D V P P	P A L	Q A I	H F N P	
CCTGTTCCTG	AACAATGGAA	CAACTTCAGC	ACAGAAATAA	ACACCACTTC	650
P V P E	Q W N	N F S	T E I N	T T S	
L F L	N N G T	T S A	Q K *	T P L P	
C S *	T M E	Q L Q H	R N K	H H F	
CGTTTTAGTA	GGACCTCTTG	TTTCCAATCT	GGAAATAACC	CATACCTCAA	700
V L V	G P L	V S N L	E I T	H T S N	
F * *	D L L	F P I W	K * P	I P Q	
R F S R	T S C	F Q S	G N N P	Y L K	

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FIG 4 (continued)  
FIG 4C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ACCTCACCTG	TGTAAAATTT	AGCAATACTA	TAGACACAAC	CAGCTCCCAA	750
L T C	V K F	S N T I	D T T	S S Q	
T S P V	. N L	A I L	. T Q P	A P N	
P H L	C K I	. Q Y Y	R H N	Q L P M	
TGCATCAGGT	GGGTAAACACC	TCCACACAGA	ATAGTCTGCC	TACCCCTCAGG	800
C I R W	V T P	P T R	I V C L	P S G	
A S G	G . H L	P H E	. S A	Y P Q E	
H Q V	G N T	S H T N	S L P	T L R	
AATATTTTTT	GTCGTGGTAA	CCTCAGCCTA	TCATTGTTTG	AATGGCTCTT	850
I F F	V C G T	S A Y	H C L	N G S S	
Y F L	S V V	P Q P I	I V .	M A L	
N I F C	L W Y	L S L	S L F E	W L F	
CAGAATCIAT	GTCCTTCCTC	TCATTCTTAG	TGCCCCCTAT	GACCATCTAC	900
E S M	C F L	S F L V	P P M	T I Y	
Q N L C	A S S	H S .	C P L .	P S T	
R I Y	V L P L	I L S	A P Y	D H L H	
ACTGAACAAG	ATTATACAA	TCATGTGGTAA	CCTAAGCCCC	ACAACAAAAG	950
T E Q D	L Y N	H V V	P K P H	N K R	
L N K	I Y T I	M S Y	L S P	T T K E	
. T R	F I Q	S C R T	. A P	Q Q K	
AGTACCCATT	CTTCCTTTTG	TTATCAGAGC	AGGAGTGCTA	GCCAGACTAG	1000
V P I	L P F V	I R A	G V L	G R L G	
Y P F	F L L	L S E Q	E C .	A D .	
S T H S	S F C	Y Q S	R S A R	Q T R	
GIACCTGGCAT	TGGCAGIATC	ACAACCTCTA	CTCAGITCTA	CTACAAACTA	1050
T G I	G S I	T T S T	Q F Y	Y K L	
V L A L	A V S	Q P L	L S S T	T N Y	
Y W H	W Q Y H	N L Y	S V L	L Q T I	

~~FIG 4 (continued)~~

## FIG 4D

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCICAAGAAA	TAAATGGTGA	CATGGAACAG	GTCACITGACT	CCCTGGTTCAC	1100
S Q E I	N G D M	E Q V T	D S L V	T	
L K K	. M V T	W N R	S L T	P W S P	
S R N	K W .	H G T G	H . L	P G H	
CTTGCAAGAT	CAACTTAACT	CCCTAGCAGC	AGTAGTCCTT	CAAAATCGAA	1150
L Q D	Q L N S	L A A	V V L	Q N R R	
C K I	N L T P	. Q Q	. S F	K I E	
L A R S	T . L	P S S	S S P S	K S K	
GACCTTTAGA	CTTGCTAACC	GCCAAAAGAG	GGGGAACCTG	TTTATTTTAA	1200
A L D	L L T A	K R G	G T C	L F L	
E L .	T C . P	P K E	G E P V	Y F .	
S F R	L A N R	Q K R	G N L	F I F R	
GGAGAAGAAC	GCTGTTATTA	TGTTAATCAA	TCCAGAATTG	TCACTGAGAA	1250
G E E R	C Y Y	V N Q	S R I V	T E K	
E K N	A V I M	L I N	P E L	S L R K	
R R T	L L L C	. S I	Q N C	H . E	
AGTTAAAGAA	ATTGAGATC	GAATACAATG	TAGACCAGAG	GACCTTCAAA	1300
V K E	I R D R	I Q C	R A E	E L Q N	
L K K	F E I	E Y N V	E Q R	S F K	
S . R N	S R S	N T M	. S R G	A S K	
ACACCGAACG	CTGGGGCCTC	CTCAGCCAAT	GGATGCCCTG	GGTTCCTCCCC	1350
T E R	W G L	L S Q W	M P W	V L P	
T P N A	G A S	S A N	G C P G	F S P	
H R T	L G P P	Q P M	D A L	G S P L	
TTCTTAGGAC	CTCTAGCAGC	TCTAATATTG	TTACTCCTCT	TTGGACCTTG	1400
F L G P	L A A	L I L	L L L F	G P C	
S . D	L . Q L	. Y C	Y S S	L D P V	
L R T	S S S	S N I V	T P L	W T L	



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~~8/32~~~~FIG 4~~ (continued)

FIG 4E

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10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
TATCTTTAAC	CTCCTTGTTA	AGTTTGICTC	TTCAGAATT	GAAGCTGTAA
I F N	L L V K	F V S	S R I	E A V K
S L T	S L L	S L S L	P E L	K L .
Y L .	P P C .	V C L	F Q N .	S C K

AGCTACAGAT	GGTCTTACAA	ATGGAACCCC	A	1481
L Q M	V L Q	M E P		
S Y R W	S Y K	W N P		
A T D	G L T N	G T P		

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FIG 5 A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TCAAATCGA	AGAGCTTTAG	ACTTGCTAAC	CGCCAAAAGA	GGGGGAACCT	50
S K S K	S F R	L A N	R Q K R	G N L	
Q N R	R A L D	L L T	A K R	G G T C	
K I E	E L .	T C .	P P K E	G E P	
GTTTATTTT	AGGGGAAGAA	TGCTGTTAGT	ATGTTAATCA	ATCTGGAATC	100
F I F	R G R M	L L V C .	S I W N H		
L F L	G E E	C C .	Y V N Q	S G I	
V Y F .	G K N	A V S	M L I N	L E S	
ATTACTGAGA	AAGTTAAAGA	AATTTGAGAT	CGAATATAAT	GTACAGCAGA	150
Y . E	S . R	N L R S	N I M .	S R	
I T E K	V K E	I . D	R I . C	R A E	
L L R	K L K K	F E I	E Y N	V E Q R	
GGACCTTCAA	AACACTGCAC	CCTGGGGGCT	CCTCAGCCAA	TGGATGGGCT	200
G P S K	H C T	L G P	P Q P M	D A L	
D L Q	N T A P	W G L	L S Q	W M P W	
T F K	T L H	P G A S	S A N	G C P	
GGACTCTCC	CTTCTTAGGA	CCTCTAGCAG	CTATAATATT	TTTACTCTC	250
D S P	L L R T	S S S	Y N I	F T P L	
T L P	F L G	P L A A	I I F	L L L	
G L S P	S . D	L . Q	L . Y F	Y S S	
TTTGGACCT	GTATCTTCAA	CTTCTTGTT	AAGTTTGICT	CTTCCAGAT	300
W T L	Y L Q	L P C .	V C L	F Q N	
F G P C	I F N	F L V	K F V S	S R I	
L D P	V S S T	S L L	S L S	L P E L	
TGAAGCTGTA	AAGCTACAAA	TAGTTCTTCA	AATGGAACCC	CAGATGCAGT	350
. S C K	A T N	S S S	N G T P	D A V	
E A V	K L Q I	V L Q	M E P	Q M Q S	
K L .	S Y K .	F F K	W N P	R C S	

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CCATGACTAA	AATCTACCGT	GGACCCCTGG	ACCGGCCTGC	TAGACTATGC	400
H D .	N L P W	T P G	P A C	. T M L	
M T K	I Y R	G P L D	R P A	R L C	
P . L K	S T V	D P W	T G L L	D Y A	
TCTGATGTTA	ATGACATTGA	AGTCACCCCT	CCCGAGGAAA	TCTCAACTGC	450
. C .	. H .	S H P S	R G N	L N C	
S D V N	D I E	V T P	P E E I	S T A	
L M L	M T L K	S P L	P R K	S Q L H	
ACAACCCCTA	CTACACTCCA	ATTCAGTAGG	AAGCAGTTAG	AGCAGTTGTC	500
T T P T	T L Q	F S R	K Q L E	Q L S	
Q P L	L H S N	S V G	S S .	S S C Q	
N P Y	Y T P	I Q .	E A V R	A V V	
AGCCAACCTC	CCCAACAGTA	CTTGGGTTTT	CCTGTTGAGA	GGGIGGACTG	550
A N L	P N S T	W V F	L L R	G W T E	
P T S	P T V	L G F S	C .	E G G L	
S Q P P	Q Q Y	L G F	P V E R	V D .	
AGAGACAGGA	CTAGCTGGAT	TTCCTAGGCT	GACTAAGAAT	CCCAAGCCT	600
R Q D	. L D	F L G .	L R I	P K P	
R D R T	S W I	S . A	D . E S	X S L	
E T G	L A G F	P R L	T K N	P X A X	
ANCTGGGAAG	GTGACCGCAT	CCATCTTTAA	ACATGGGGCT	TGCAACTTAG	650
X W E G	D R I	H L .	T W G L	Q L S	
X G K	V T A S	I F K	H G A	C N L A	
L G R	. P H	P S L N	M G L	A T .	
CTCACACCCG	ACCAATCAGA	GAGCTCACTA	AAATGCTAAT	CAGGCAGAAA	700
S H P	T N Q R	A H .	N A N	Q A K T	
H T R	P I R	E L T K	M L I	R Q K	
L T P D	Q S E	S S L	K C .	S G K N	

~~FIG 5 (continued)~~  
FIG 5C.

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CAGGAGGTAA	AGCAATAGOC	AATCATCTAT	TGCTGAGAG	CACAGCGGGA	750
G G K	A I A	N H L L	P E S	T A G	
Q E V K	Q . P	I I Y	C L R A	Q R E	
R R .	S N S Q	S S I	A . E	H S G K	
AGGACAAGGA	TTGGGATATA	AACTCAGGCA	TTCAAGCCAG	CAACAGCAAC	800
R T R I	G I .	T Q A	F K P A	T A T	
G Q G	L G Y K	L R H	S S Q	Q Q Q P	
D K D	W D I	N S G I	Q A S	N S N	
CCCCTTGGG	TCCCCCCCCA	TTGATGGA	GCTCTGTTT	CACTCTATT	850
P F G	S P P I	V W E	L C F	H S I S	
P L G	P L P	L Y G S	S V F	T L F	
P L W V	P S H	C M G	A L F S	L Y F	
CACCTATTA	AATCATGCAA	CTGCACCTCT	CTGGTCGGTG	TTTTTATGG	900
L Y .	I M Q	L H S S	G P C	F L W	
H S I K	S C N	C T L	L V R V	F Y G	
T L L	N H A T	A L F	W S V	F F M A	
CTCAAGCTGA	GCTTTTGTTT	GCCATCCACC	ACTGCTGTTT	GCCACCGTCA	950
L K L S	F C S	P S T	T A V C	H R H	
S S .	A F V R	H P P	L L F	A T V T	
Q A E	L L F	A I H H	C C L	P P S	
CAGACCGCT	GCTGACTTCC	ATCCCTTTGG	ATCCAGCAGA	GIGTCCACTG	1000
R P A	A D F H	P F G	S S R	V S T V	
D P L	L T S	I P L D	P A E	C P L	
Q T R C	. L P	S L W	I Q Q S	V H C	
TGCTCTGAT	CCAGCGAGGT	AACCATTGOC	ACTCCCGATC	AGGCTAAAGG	1050
L L I	Q R G	T H C H	S R S	G . R	
C S .	S S E V	P I A	T P D Q	A K G	
A P D	P A R Y	P L P	L P I	R L K A	

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CTTGCCATTG	TTCTGTCATG	GCTAAGTGCC	TGGGTTTGIC	CTAATAGAAC	1100
L A I V	P A W	L S A	W V C P	N R T	
L P L	F L H G	. V P	G F V	L I E L	
C H C	S C M	A K C L	G L S	. . N	
TGAACACTGG	TCACTGGGTT	CCATGGTCT	CTTCCATGAC	CCACGGCTTC	1150
E H W	S L G S	M V L	F H D	P R L L	
N T G	H W V	P W F S	S M T	H G F	
. T L V	T G F	H G S	L P .	P T A S	
TAATAGAGCT	ATAACACTCA	CCGCATGGCC	CAAGATTCCA	TTCTTGGTGA	1200
I E L	. H S	P H G P	R F H	S L V	
. . S Y	N T H	R M A	Q D S I	P W Y	
N R A	I T L T	A W P	K I P	F L G I	
TCGTGAGGC	CAAGAACCCC	AGGTCAGAGA	ANGTGAGGCT	TGCCACCAT	1250
S V R P	R T P	G Q R	X . G L	P P F	
L . G	Q E P Q	V R E	X E A	C H H L	
C E A	K N P	R S E X	V R L	A T I	
TGGGAAGTGG	CCCACTGCCA	TTTGTGGTAGC	GGCCACCAC	CATCTTGGGA	1300
G K W	P T A I	L V A	A H H	H L G S	
G S G	P L P	F W .	R P T T	I L G	
W E V A	H C H	F G S	G P P P	S W E	
GCTGTGGGAG	CAAGGATCCC	CCAGTAACA			1329
C G S	K D P	P V T			
A V G A	R I P	Q .			
L W E	Q G S P	S N			

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CCTAGAACGT	ATTCTGGAGA	ATTGGGACCA	ATGTGACACT	CAGACGCTAA	50
P R T Y	S G E L	G P M .	H S .	D A K	
L E R	I L E N	W D Q	C D T	Q T L R	
. N V	F W R	I G T N	V T L	R R .	
GAAAGAAAG	ATTTATATTC	TTCTGCAGTA	CCGCGTGGCC	ACAATATCCT	100
K E T	I Y I L	L Q Y	R L A	T I S S	
K K R	F I F	F C S T	A W P	Q Y P	
E R N D	L Y S	S A V	P P G H	N I L	
CTTCAAGGA	GAGAAACCTG	GCTTCTTGAG	GGAAGTATAA	ATTATAACAT	150
S R E	R N L	A S .	G K Y K	L . H	
L Q G R	E T W	L P E	G S I N	Y N I	
F K G	E K P G	F L R	E V .	I I T S	
CATCTTACAG	CTAGACCTCT	TCTGTAGAAA	GGAGGGCAAA	TGGAGTGAAG	200
H L T A	R P L L	. K	G G Q M	E . S	
I L Q .	L D L F	C R K	E G K .	W S E V	
S Y S .	T S	S V E R	R A N	G V K	
TGCCATATGT	GCAAACTTTC	TTTTCAATTAA	GAGACAATC	ACAATTATGT	250
A I C	A N F L	F I K	R Q L	T I M .	
P Y V	Q T F	F S L R	D N S	Q L C	
C H M C	K L S	F H .	E T T H	N Y V	
AAAAAGTGTG	GTTTATGCCC	TACAGGAAC	CCTCAGAGTC	CACCTCCCTA	300
K V W	F M P	Y R K P	S E S	T S L	
K K C G	L C P	T G S	P Q S P	P P Y	
K S V	V Y A L	Q E A	L R V	H L P T	
CCCCAGGTC	CCCTCCCCGA	CTCCTTCTC	AACTAATAAG	GACCCCCCTT	350
P Q R P	L P D	S F L N .	. G	P P F	
P S V	P S P T	P S S	T N K	D P P L	
P A S	P P R	L L P Q	L I R	T P L	
TAACCCAAAC	GGTCCAAAG	GAGATAGACA	AAGGGGIAAA	CAATGAACCA	400
N P N	G P K G	D R Q	R G K	Q . T K	
T Q T	V Q K	E I D K	G V N	N E P	
. P K R	S K R	R .	T K G .	T M N Q	
AAGAGTGGCA	ATATTCCCCG	ATTATGCCCC	CTCCAAGCAG	TGAGAGGAGG	450
E C Q	Y S P	I M P P	P S S	E R R	
K S A N	I P R	L C P	L Q A V	R G G	
R V P	I F P D	Y A P	S K Q	. E E E	
AGAATTGGGC	CCAGCCAGAG	TGCTGTACC	TTTTTCTCTC	TCAGACTTAA	500
R I R P	S Q S	A C T	F F S L	R L K	
E F G	P A R V	P V P	F S L	S D L K	
N S A	Q P E	C L Y L	F L S	Q T .	

~~FIG 6 (continued)~~  
FIG 6B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AGCAAATTAA	AATAGACCTA	GGTAAATTCT	CAGATAACCC	TGACGGCTAT	550
A N .	N R P R .	I L R .	P .	R L Y	
Q I K	I D L	G K F S	D N P	D G Y	
S K L K .	T .	V N S	Q I T L	T A I	
ATTGATGTTT	TACAAGGGTT	AGGACAATCC	TTTGATCTGA	CATGGAGAGA	600
. C F	T R V	R T I L .	S D M E R		
I D V L	Q G L	G Q S	F D L T	W R D	
L M F	Y K G .	D N P L I .	H G E I		
TATAATGTTA	CTACTAAATC	AGACACTAAC	CCCAAATGAG	AGAAGTGCCG	650
Y N V T	T K S	D T N	P K .	E K C R	
I M L	L L N Q	T L T	P N E	R S A A	
. C Y Y .	I R H .	P Q M R	E V P		
CTGTAACCTG	AGCCCGAGAG	TTTGGCGATC	TTTGGTATCT	CAGTCAGGCC	700
C N C	S P R V	W R S	L V S	Q S G Q	
V T A	A R E	F G D L	W Y L	S Q A	
L .	L Q P E S	L A I	F G I S	V R P	
AACAATAGGA	TGACAACAGA	GGAAAGAACA	ACTCCACAG	GCCAGCAGCC	750
Q .	D D N R	G K N N	S H R	P A G	
N N R M	T T E	E R T	T P T G	Q Q A	
T I G .	Q Q R	K E Q	L P Q	A S R Q	
AGTTCCCACT	GTAGACCTTC	ATTGGGACAC	AGAATCAGAA	CATGGAGATT	800
S S Q C	R P S	L G H	R I R T	W R L	
V P S	V D P H	W D T	E S E	H G D W	
F P V .	T L I G T Q	N Q N	M E I		
GGTGGCACA	ACATTIGCTA	ACTTGGGTGC	TAGAAGGACT	GAGGAAACT	850
V P Q	T F A N	L R A	R R T	E E N .	
C H K	H L L	T C V L	E G L	R K T	
G A T N	I C .	L A C .	K D .	G K L	
AGGAGAAC	CTATGAATTA	CTCAATGATG	TCCACTATAA	CACAGGGAAA	900
E E A	Y E L	L N D V	H Y N	T G K	
R K K P	M N Y	S M M	S T I T	Q G K	
G R S L .	I T Q .	C P L .	H R E R		
GGAGAAAAT	CTTACTGCTT	TTCCTGACAG	ACTAAGGGAG	GCATTGAGCA	950
G R K S	Y C F	S G Q	T K G G	I E E	
E E N	L T A F	L D R	L R E	A L R K	
K K I	L L L	F W T D .	G R H .	G	
AGCATACCTC	CCGTGACCT	GACTCTATTG	AAGGCCAACT	AATCTTAAAG	1000
A Y L	P V T .	L Y .	R P T	N L K G	
H T S	L S P	D S I E	G Q L	I L K	
S I P P	C H L	T L L	K A N .	S . R	

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FIG 6 (continued)  
FIG 6C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GATAAGTTTA	TCACTCAGTC	AGCTGCAGAC	ATTAGAAAAA	ACTTCAAAAG	1050
V Y H S V	S C R H	K K L Q K			
D K F I	T Q S A A D	I R K N	F K S		
I S L S L S Q	L Q T L E K	T S K V			
TCTGCOCTTAG	GCCCCGAGCA	GAACCTTAGAA	ACCCATTTTA	ACTTGGCATT	1100
S A L G	P E Q N L E	T L F N	L A S		
L P A R S R	T K P Y L	T W H P			
C L R P G A	E L R N	P I L G I			
CTCAGTTTTT	TATAATAGAG	ATCAGGAGGA	GCAGGCGAAA	CGGGACAAAC	1150
S V F Y N R D	Q E E Q A K	R D K R			
Q F F I I E	I R R S	R R N G T N			
L S F L R	S G G A G E T	G Q T			
GGGATAAAAA	AAAAAGGGGG	GGTCCACTAC	TTTAGTCATG	GGCCTCAGGC	1200
D K K K R G	G P L L S W	P S G			
G I K K K G G	V H Y F S H	G P Q A			
G K K K G G	S T T L V M	A L R Q			
AAGCAGACTT	TGGAGGCTCT	GCAAAAGGGA	AAAGCTGGGC	AAATCAAATG	1250
K Q T L E A L	Q K G K A G Q	I K C			
S R L W R L C	K R E K L G	K S N A			
A D F G G S	A K G K S W A	N Q M			
OCTAATAGGG	CTGGCTTCCA	GTCGGGTCTA	CAAGGACACT	TTAAAAAGA	1300
L I G L A S S	A V Y K D T	L K K I			
G W L P V R S T	R T L K R				
P N R A G F Q	C G L Q G H F	K K D			
TTATCCAAGT	AGAAATAAGC	CGCCCCCTTG	TCCATGCCCC	TTACGTCAAG	1350
I Q V E I S	R P L V H A P	Y V K			
L S K K A A P L	S M P L T S R				
Y P S R N K P	P P C P C P	L R Q G			
GGAATCACTG	GAAGGCCCCAC	TGCCCCAGGG	GATGAAGATA	CCTCAGATCA	1400
G I T G R P T	A P G D E D T	L S Q			
E S L E G P L	P Q G M K I	L V R			
N H W K A H	C P R G R Y	S E S			
GAAGCCATTA	ACCAGATGAT	CCAGCAGCAG	GACTGAGGGT	GGCCCCGGGG	1450
K P L T R S	S S R T E G	A R G E			
S H P D D	P A A G L R V	P G A			
E A I N Q M I	Q Q Q D G C	P G R			
AGCGCCAGCC	CATGOCATCA	COCTCAGAGA	GGCCCCGGTA	TGTTTGAACA	1500
R Q P M P S	P S Q S P G Y	V P			
S A S P C H H	P H R A P G M	F D H			
A P A H A I T	L T E P R V	C L T I			



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~~FIG 6 (continued)~~

FIG 6D

10	20	30	40	50
1234567890	1234567890	1234567890	1234567890	1234567890
TTGAGAGCCA A				
L R A				1511
. E P				
E S Q				

FIG 7A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ATGGGCAGCA	GCCATCATCA	TCATCATCAC	AGCAGCGGCC	TGGTGGCGCG	50
M G S S	H H H	H H H	S S G L	V P R	
CGGCAGCCAT	ATGGCTAGCA	TGACTGGTGG	ACAGCAAATG	GGTGGGATCC	100
G S H	M A S M	T G G	Q Q M	G R I L	
TAGAAGTAT	TCTGGAGAAT	TGGGACCAAT	GTGACACTCA	GACGCTAAGA	150
E R I	L E N	W D Q C	D T Q	T L R	
AAGAAAGAT	TTATATTCTT	CTGCAGTACC	GCTTGGCCAC	AATATCTCT	200
K K R F	I F F	C S T	A W P Q	Y P L	
TCAAGGGAGA	GAAACCTGGC	TTCCTGAGGG	AAGTATAAAT	TATAACATCA	250
Q G R	E T W L	P E G	S I N	Y N I I	
TCTTACAGCT	AGACCTCTTC	TGTAGAAAGG	AGGGCAAATG	GAGTGAAGTG	300
L Q L	D L F	C R K E	G K W	S E V	
CCATATGTGC	AAACTTTCTT	TTCATTAAGA	GACAACTCAC	AATTATGTAA	350
P Y V Q	T F F	S L R	D N S Q	L C K	
AAAGTGTGGT	TTATGCCCTA	CAGGAAGCCC	TCAGAGTCCA	CCTCCCTACC	400
K C G	L C P T	G S P	Q S P	P P Y P	
CCAGCGTCCC	CTCCCCGACT	CCTTCTCTCA	CTAATAAGGA	CCCCCTTTA	450
S V P	S P T	P S S T	N K D	P P L	
ACCCAAACGG	TCCAAAAGGA	GATAGACAAA	GGGGTAAACA	ATGAACCAAA	500
T Q T V	Q K E	I D K	G V N N	E P K	
GAGTGCCAAT	ATTCCCCGAT	TATGCCCCCT	CCAAGCAGTG	AGAGGAGGAG	550
S A N	I P R L	C P L	Q A V	R G G E	
AATTGGGCCC	AGCAGAGTG	CCTGTACCTT	TTTCTCTCTC	AGACTTAAAG	600
F G P	A R V	P V P F	S L S	D L K	
CAAATTAAAA	TAGACCTAGG	TAAATTCTCA	GATAACCTTG	AAGGCTATAT	650
Q I K I	D L G	K F S	D N P D	G Y I	
TGATGTTTAA	CAAGGGTETAG	GACAATCTTT	TGATCTGACA	TGGAGAGATA	700
D V L	Q G L G	Q S F	D L T	W R D I	
TAATGTTACT	ACTAAATCAG	AACTTAACCC	CAAATGAGAG	AAGTGGCGCT	750
M L L	L N Q	T L T P	N E R	S A A	
GTAAGTGCAG	CCCGACAGTT	TGGCGATCTT	TGGTATCTCA	GTGAGGCCAA	800
V T A A	R E F	G D L	W Y L S	Q A N	

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
CAATAGGATG	ACAACAGAGG	AAAGAACAAC	TCCCACAGGC	CAGCAGGCAG	850
N R M	T T E E	R T T	P T G	Q Q A V	
TTCCCAGTGT	AGACCCTCAT	TGGGACACAG	AATCAGAACA	TGGAGATTGG	900
P S V	D P H	W D T E	S E H	G D W	
TGCCACAAAC	ATTTGCTAAC	TTGGGTGCTA	GAAGGACTGA	GGAAAAC TAG	950
C H K H	L L T	C V L	E G L R	K T R	
GAAGAAGCCT	ATGAATTACT	CAATGATGTC	CACTATAACA	CAGGGAAAGG	1000
K K P	M N Y S	M M S	T I T	Q G K E	
AAGAAAATCT	TACTGCTTTT	CTGGACAGAC	TAAGGGAGGC	ATTGAGGAAG	1050
E N L	T A F	L D R L	R E A	L R K	
CATACCTCCC	TGTCACCTGA	CTCTATTGAA	GCCCAACTAA	TCTTAAAGGA	1100
H T S L	S P D	S I E	G Q L I	L K D	
TAAGTTTATC	ACTCAGTCAG	CTGCAGACAT	TAGAAAAAAC	TTCAAAAGTC	1150
K F I	T Q S A	A D I	R K N	F K S L	
TGCTTAAGCT	TGCGGCGGCA	CTCGAGCACC	ACCAACCACCA	CCACTGAGAT	1200
P K L	A A A	L E H H	H H H	H . D	
CCGGCTGCTA	ACAAAGCCCG	AAAGGAAGCT	GAGTTGGCTN	GTGGCNA	1247
P A A N	K A R	K E A	E L A X	G	

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FIG 8A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ATGGCTAGCA	TGACTGGTGG	ACAGCAAATG	GGTCGGATCC	TAGAACGTAT	50
M A S M	T G G	Q Q M	G R I L	E R I	
TCTGGAGAAT	TGGACCAAT	GTGACACTCA	GACGCTAAGA	AAGAAACGAT	100
L E N	W D Q C	D T Q	T L R	K K R F	
TTATATTCTT	CTGCAGTACC	GCCTGGCCAC	AATATCCTCT	TCAAGGGAGA	150
I F F	C S T	A W P Q	Y P L	Q G R	
GAAACCTGGC	TTCCTGAGGG	AAGTATAAAT	TATAACATCA	TCTTACAGCT	200
E T W L	P E G	S I N	Y N I I	L Q L	
AGACCTCTTC	TGTAGAAAGG	AGGGCAAATG	GAGTGAAGTG	CCATATGTGC	250
D L F	C R K E	G K W	S E V	P Y V Q	
AAACTTTCTT	TTCATTAAGA	GACAATCACC	AATTATGTAA	AAAGTGTGGT	300
T F F	S L R	D N S Q	L C K	K C G	
TTATGCCCTA	CAGGAAGCCC	TCAGAGTCCA	OCTCCTTACC	CCAGGGTCCC	350
L C P T	G S P	Q S P	P P Y P	S V P	
CTCCCGACT	CCTTCCTCAA	CTAATAAGGA	CCCCCCTTTA	ACCCAAAACG	400
S P T	P S S T	N K D	P P L	T Q T V	
TCCAAAAGGA	GATAGACAAA	GGGGTAAACA	ATGAACCAAA	GAGTGCCAAT	450
Q K E	I D K	G V N N	E P K	S A N	
ATTCCCGAT	TATGCCCCCT	CCAAGCAGTG	AGAGGAGGAG	AATTGGGCCC	500
I P R L	C P L	Q A V	R G G E	F G P	
AGOCAGAGTG	OCTGTACCTT	TTTCTCTCTC	AGACTTAAAG	CAAATTAAAA	550
A R V	P V P F	S L S	D L K	Q I K I	
TAGAOCAGG	TAAATTCTCA	GATAAOCCTG	ACGGCTATAT	TGATGTTTAA	600
D L G	K F S	D N P D	G Y I	D V L	
CAAGGGTAG	GACAATCCTT	TGATCTGACA	TGGAGAGATA	TAATGTTACT	650
Q G L G	Q S F	D L T	W R D I	M L L	
ACTAAATCAG	ACACTAACC	CAATGAGAG	AAGTGOOGCT	GTAACGACAG	700
L N Q	T L T P	N E R	S A A	V T A A	
CCCGAGAGTT	TGGGATCTTT	TGGTATCTCA	GTCAGGCCAA	CAATAGGATG	750
R E F	G D L	W Y L S	Q A N	N R M	
ACAACAGAGG	AAAGAACAAC	TCCACAGGC	CAGCAGGCAG	TTCOCAGTGT	800
T T E E	R T T	P T G	Q Q A V	P S V	

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FIG 8 (continued)

FIG 8B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AGACCCCTCAT	TGGGACACAG	AATCAGAACA	TGGAGATTGG	TGOCACAAAC	850
D P H	W D T E	S E H	G D W	C H K H	
ATTTCCTAAC	TTGGTGCTA	GAAGGACTGA	GGAAACTAG	GAAGAAGCCT	900
L L T	C V L	E G L R	K T R	K K P	
ATGAATTACT	CAATGATGTC	CACTATAACA	CAGGAAAGG	AAGAAAATCT	950
M N Y S	M M S	T I T	Q G K E	E N L	
TACTGCTTTT	CTGGACAGAC	TAAGGGAGGC	ATTGAGGAAG	CATACCTCCC	1000
T A F	L D R L	R E A	L R K	H T S L	
TGTCACCTGA	CTCTATTGAA	GGCCAACTAA	TCTTAAAGGA	TAAGTTTATC	1050
S P D	S I E	G Q L I	L K D	K F I	
ACTCAGTCAG	CTGCAGACAT	TAGAAAAAAC	TTCAAAAGTC	TGCCTAAGCT	1100
T Q S A	A D I	R K N	F K S L	P K L	
TGGGGGCGCA	CTGAGCACC	ACCACCACCA	CCACTGAGAT	CCGGCTGCTA	1150
A A A	L E H H	H H H	H . D	P A A N	
ACAAAGCCCC	AAAGGAAGCT	GAGTTGGCTG	GTGGCA		1186
K A R	K E A	E L A G	G		

FIG 9A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGTCGCGTGT	GCTCCTGATC	CAGCACAGGC	GCCCATTTGCC	TCCTCCCAATT	50
C P L C S . S	S T G A H C L	S Q L			
V R C A P D P	A Q A P I A	S P N W			
S A V L L I	Q H R R	P L P L P I			
GGGCTAAAGG	CTTGCCATTG	TTCTTGACAA	GCTAAGTGGC	TGGGTTCATC	100
G . R L A I V	P A Q L S A	W V H P			
A K G L P L	F L H S . V	P G F I			
G L K A C H C	S C T A K C L	G S S			
CTAATCGAGC	TGAACACTAG	TCACTGGGTT	CCACGGTTCT	CTTCCATGAC	150
N R A E H .	S L G S T V L	F H D			
L I E L N T S	H W V P R F S	S M T			
. S S . T L V	T G F H G S	L P . P			
CCATGGCTTC	TAATAGAGCT	ATAACACTCA	CTGCATGGTC	CAAGATTCCA	200
P W L L I E L .	H S L H G P	R F H			
H G F . . S Y	N T H C M V	Q D S I			
M A S N R A	I T L T A W S	K I P			
TTCTTGGAA	TCCGTGAGAC	CAAGAACCCC	AGGTCAGAGA	ACACAAGGCT	250
S L E S V R P	R T P G Q R	T Q G L			
P W N P . D	Q E P Q V R E	H K A			
F L G I R E T	K N P R S E N	T R L			
TGCCAACCATG	TTGGAAGCAG	CCCACACCA	TTTIGGAAGC	AGCCCGCCAC	300
P P C W K Q	P T T I L E A	A R H			
C H H V G S S	P P P F W K Q	P A T			
A T M L E A A	H H H F G S	S P P L			
TATCTTGGGA	GCTCTGGGAG	CAAGGACCCC	AGGTAACAAT	TTGGTGACCA	350
Y L G S S G S	K D P R . Q	F G D H			
I L G A L G A	R T P G N N	L V T T			
S W E L W E	Q G P Q V T I	W . P			
CGAAGGGACC	TGAATCCGCA	ACCATGAAGG	GATCTCCAAA	GCAATTGGAA	400
E G T . I R N	H E G I S K	A I G N			
K G P E S A	T M K G S P K	Q L E			
R R D L N P Q	P . R D L Q	S N W K			

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~~FIG 9 (continued)~~

FIG 9B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ATGTTCTCTCC	CAAGGCAAAA	ATGCCCCCTAA	GATGTATTCT	GGAGAATTGG	450
V P P	K A K	M P L R	C I L	E N W	
M F L P	R Q K	C P .	D V F W	R I G	
C S S	Q G K N	A P K	M Y S	G E L G	
GACCAATTTG	ACCTTCAGAC	AGTAAGAAAA	AAATGACTTA	TATTCTTCTG	500
D Q F D	P Q T	V R K K	. L I	F F C	
T N L	T L R Q	. E K	N D L	Y S S A	
P I .	P S D	S K K K	M T Y	I L L	
CAGTACCGCC	CTGGCCACGA	TATCCTCTTC	AAGGGGGAGA	AACCTGGCCT	550
S T A	L A T I	S S S	R G R	N L A S	
V P P	W P R	Y P L Q	G G E	T W P	
Q Y R P	G H D	I L F	K G E K	P G L	
CCTGAGGGAA	GTATAAATTA	TAACACCATC	TTACAGCTAG	ACCTGTTTIG	600
. G K	Y K L	. H H L	T A R	P V L	
P E G S	I N Y	N T I	L Q L D	L F C	
L R E V	. I I	T P S	Y S .	T C F V	
TAGAAAAGGA	GGCAAATGGA	GTGAAGTGCC	ATATTACAA	ACTTCTTTT	650
. K R R	Q M E	. S A	I F T N	F L F	
R K G	G K W S	E V P	Y L Q	T F F S	
E K E	A N G	V K C H	I Y K	L S F	
CATTAAAGA	CAACTCGCAA	TTATGTTAAC	AGTGTGATTT	GIGTTCCTAC	700
I K R	Q L A I	M L T V	. F	V F L H	
L K D	N S Q	L C .	Q C D L	C S Y	
H . K T	T R N	Y V N	S V I C	V P T	
ACGGAAGCCC	TCAGATTCTA	CTCCCCACCC	CCGGCATCTC	CCCTGAATCC	750
G S P	Q I L	L P T P	G I S	P E S	
T E A L	R F Y	S P P	P A S P	L N P	
R K P	S D S T	P H P	R H L	P . I P	
CTCCCCAACT	TATT				764
L P N L					
S P T Y					
P Q L I					

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FIG 10A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
TGTCGCTGT	GCTCTGATC	CAGCACAGGC	GCCCATTGCC	TCTCCCAATT	50
C P L C	S . S	S T G	A H C L	S Q L	
V R C	A P D P	A Q A	P I A	S P N W	
S A V	L L I	Q H R R	P L P	L P I	
GGGCTAAAGG	CTTGCCATTG	TTCCTGCACA	GCTAAGTGCC	TGGGTTTCATC	100
G . R	L A I V	P A Q	L S A	W V H P	
A K G	L P L	F L H S	. V P	G F I	
G L K A	C H C	S C T	A K C L	G S S	
CTAATCGAGC	TGAACACTAG	TCACTGGGTT	CCACGGTTC	CTTCCATGAC	150
N R A	E H .	S L G S	T V L	F H D	
L I E L	N T S	H W V	P R F S	S M T	
. S S	. T L V	T G F	H G S	L P . P	
CCATGGCTTC	TAATAGAGCT	ATAACACTCA	CTGCATGGTC	CAAGATTCCA	200
P W L L	I E L	. H S	L H G P	R F H	
H G F	. . S Y	N T H	C M V	Q D S I	
M A S	N R A	I T L T	A W S	K I P	
TTCCTTGGA	TCCGTGAGAC	CAAGAACCCC	AGGTCAGAGA	ACACAAGGCT	250
S L E	S V R P	R T P	G Q R	T Q G L	
P W N	P . D	Q E P Q	V R E	H K A	
F L G I	R E T	K N P	R S E N	T R L	
TGCCACCATG	TIGGAAGCAG	CCCACCAACA	TTTIGGAAGC	GGCCCCGAC	300
P P C	W K Q	P T T I	L E A	A R H	
C H H V	G S S	P P P	F W K R	P A T	
A T M	L E A A	H H H	F G S	G P P L	
TATCTTGGGA	GCTCTGGGAG	CAAGGACCCC	CAGGTAACAA	TTTGGTGACC	350
Y L G S	S G S	K D P	Q V T I	W . P	
I L G	A L G A	R T P	R . Q	F G D H	
S W E	L W E	Q G P P	G N N	L V T	
ACGAAGGGAC	CTGAATCGC	AACCATGAAG	GGATCTCCAA	AGCAATTGGA	400
R R D	L N P Q	P . R	D L Q	S N W K	
E G T	. I R	N H E G	I S K	A I G	
T K G P	E S A	T M K	G S P K	Q L E	



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FIG 10 (continued)

FIG 10B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
AATGTTCCCTC	CCAAGGCCAAA	AATGCCCCCTA	AGATGTATTC	TGGAGAATTG	450
C S S	Q G K	N A P K	M Y S	G E L	
N V P P	K A K	M P L	R C I L	E N W	
M F L	P R Q K	C P .	D V F	W R I G	
GGACCAATCT	GACCTCAGA	CAGTAAGAAA	AAAAATGACT	TATATTCTTC	500
G P I .	P S D	S K K	K N D L	Y S S	
D Q S	D P Q T	V R K	K M T	Y I L L	
T N L	T L R	Q .	E K K .	L I F F	
TGCAGTACCG	CCTGGCCACG	GATATCCTCT	TCAAGGGGGA	GAAACCTGGC	550
A V P	P G H G	Y P L	Q G G	E T W P	
Q Y R	L A T	D I L F	K G E	K P G	
C S T A	W P R	I S S	S R G R	N L A	
CTCCTGAGGG	AAGTATAAAT	TATAACACCA	TCTTACAGCT	AGACCTGTTT	600
P E G	S I N	Y N T I	L Q L	D L F	
L L R E	V .	I I T P	S Y S .	T C F	
S .	G K Y K L	. H H	L T A	R P V L	
TGTAGAAAAG	GAGGCAAATG	GAGTGAAGTG	CCATATTTAC	AAACTTTCTT	650
C R K G	G K W	S E V	P Y L Q	T F F	
V E K	E A N G	V K C	H I Y	K L S F	
. K R	R Q M E .	S A	I F T	N F L	
TTCATTAAAA	GACAACTCGC	AATTATGTAA	ACAGTGTGAT	TTGTGTCTTA	700
S L K	D N S Q	L C K	Q C D	L C P T	
H .	K T T R	N Y V N	S V I	C V L	
F I K R	Q L A	I M .	T V .	F V S Y	
CAGGAAGCCC	TCAGATCTAC	CTCCTTACCC	CGGCATCTCC	CTGACTCCTT	750
G S P	Q I Y	L P T P	A S P .	L L	
Q E A L	R S T	S L P	R H L P	D S F	
R K P	S D L P	P Y P	G I S	L T P S	
CCCCAACTAA	TAAGGACCCA	CTTCAGCCCA	AACAGTCCAA	AAGGACATAG	800
P Q L I	R T H	F S P	N S P K	G H	
P N . .	G P T	S A Q	T V Q	K D I	
P T N	K D P	L Q P K	Q S K	R T .	

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FIG 11A

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
GGCATTGATA	GCACCCATCA	GATGGCCAAA	TCATTATTTA	CTGGACCAGG	50
G I D S	T H Q	M A K	S L F T	G P G	
A L I	A P I R	W P N	H Y L	L D Q A	
H . .	H P S	D G Q I	I I Y	W T R	
CCTTTTCAAA	ACTATCAAGC	AGATAGGGCC	CGTGAAGCAT	GCCAAAGAAA	100
L F K	T I K Q	I G P	V K H	A K E I	
F S K	L S S R	. G P	. S M	P K K	
P F Q N	Y Q A	D R A	R E A C	Q R N	
TAATCCCTTG	CCTTATCGCC	ATGTTCTTTC	AGGAGAACAA	AGAACAGGCC	150
I P C	L I A	M F L Q	E N K	E Q A	
. S P A	L S P	C S F	R R T K	N R P	
N P L	P Y R H	V P S	G E Q	R T G H	
ATTACCCAGG	GGAAGACTGG	CAACTAGATT	TTACCCACAT	GGCCAAATGT	200
I T Q G	K T G N	. I	L P T W	P N V	
L P R	G R L A	T R F	Y P H	G Q M S	
Y P G	E D W	Q L D F	T H M	A K C	
CAGGGATTTC	AGCATCTACT	AGTCTGGGCA	GATACTTTCA	CTGGTTGGGT	250
R D F	S I Y .	S G Q	I L S	L V G W	
G I S	A S T	S L G R	Y F H	W L G	
Q G F Q	H L L	V W A	D T F T	G W V	
GGAGTCTTCT	CCTTGTAGGA	CAGAAAAGAC	CCAAGAGGTA	ATAAAGGCAC	300
S L L	L V G	Q K R P	K R .	. R H	
G V F S	L .	D R K D	P R G N	K G T	
E S S	P C R T	E K T	Q E V	I K A L	
TAATGAAATA	ATTCCCAAGAT	TGGACTTCC	CCCAGGATTA	CAGGGTGACA	350
. . N N	S Q I	W T S	P R I T	G . Q	
N E I	I P R F	G L P	P G L	Q G D N	
M K .	F P D	L D F P	Q D Y	R V T	

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~~FIG 11~~ (continued)

FIG 11B

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ATGGCCCCGC TTTC AAGGCT GCAGTAAACC AGGGAGTATC CCAGGTGTTA					400
W P R F Q G C S N P G S I P G V R					
G P A F K A A V T Q G V S Q V L					
M A P L S R L Q . P R E Y P R C .					
GGCATACAAT ATCACTTACA CTGTGCTTGG AGGCCACAAT CCTCCAGAAA					450
H T I S L T L C L E A T I L Q K					
G I Q Y H L H C A W R P Q S S R K					
A Y N I T Y T V P G G H N P P E K					
AGTCAAGAAA ATGAATGAAA CACTCAAAGA TCTAAAAAAG CTAACCCAAG					500
S Q E N E . N T Q R S K K A N P R					
V K K M N E T L K D L K K L T Q E					
S R K . M K H S K I . K S . P K					
AAACCCACAT TGCATGACCT GTTCTGTTGC CTATAACCTT ACTAAGAATC					550
N P H C M T C S V A Y N L T K N P					
T H I A . P V L L P I T L L R I					
K P T L H D L F C C L . P Y . E S					
CATAACTATC CCCC AAAAAG CAGGACTTAG CCCATACGAG ATGCTATATG					600
. L S P K K Q D L A H T R C Y M					
H N Y P P K S R T . P I R D A I W					
I T I P Q K A G L S P Y E M L Y G					
GATGGCCTTT CCTAACCAAT GACCTTGTGC TTGACTGAGA AATGGCCAAC					650
D G L S . P M T L C L T E K W P T					
M A F P N Q . P C A . L R N G Q L					
W P F L T N D L V L D . E M A N					
TTAGTTGCAG ACATCACCTC CTTAGCCAAA TATCAACAAG TTCTTAAAC					700
. L Q T S P P . P N I N K F L K H					
S C R H H L L S Q I S T S S . N					
L V A D I T S L A K Y Q Q V L K T					

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FIG 11 (continued)

FIG 11C

10	20	30	40	50	
1234567890	1234567890	1234567890	1234567890	1234567890	
ATCACAGGGA	ACCTGTCCCC	GAGAGGAGGG	AAAGGAACTA	TTCCACCCTG	750
H R E	P V P	E R R E	R N Y	S T L	
I T G N	L S P	R G G	K G T I	P P W	
S Q G	T C P R	E E G	K E L	F H P G	
GTGACATG					758
V T					
. H					
D M					

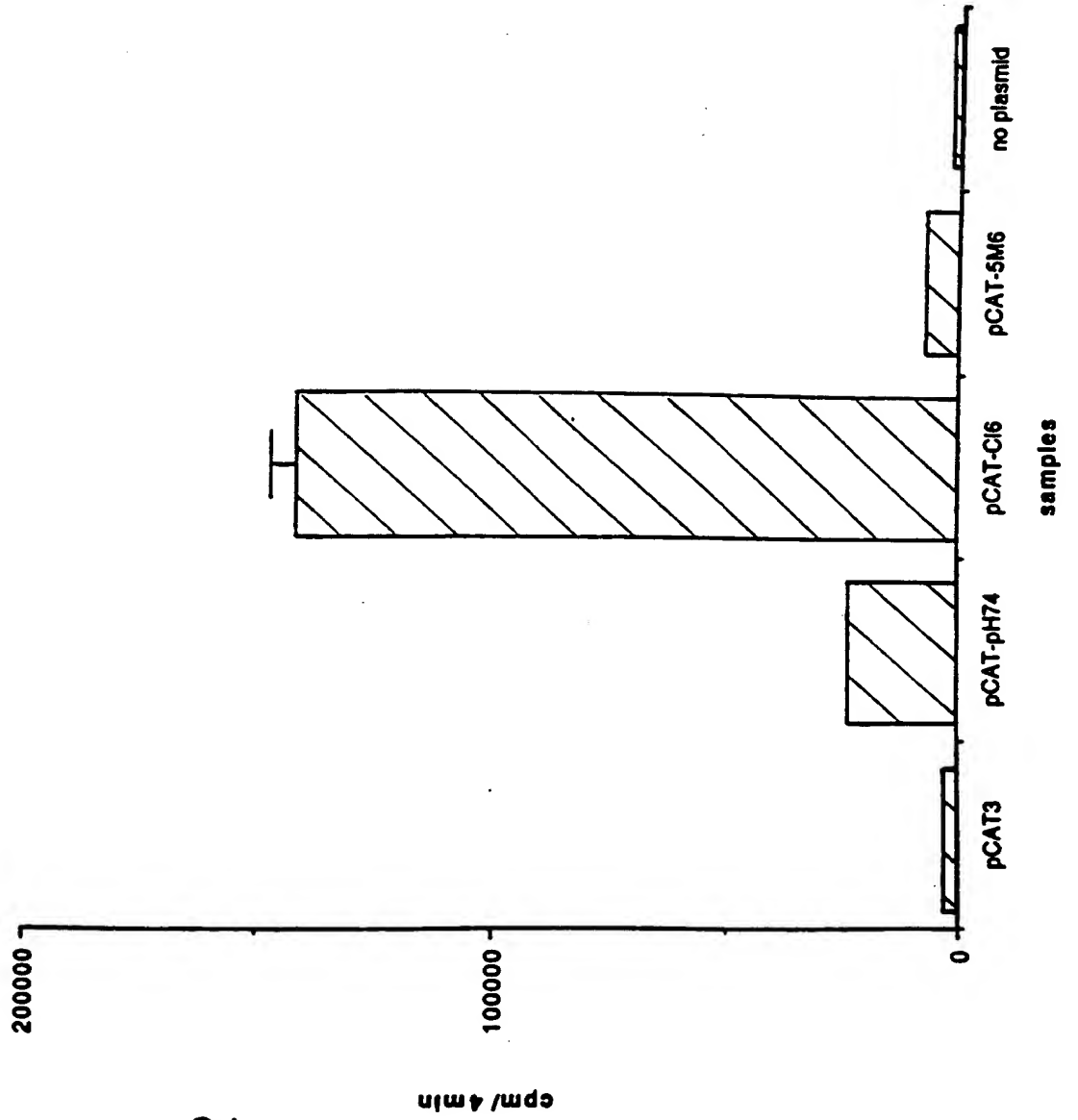


FIG 12

100 ATGGCCCTCC CTATCATAC TTCTCTCTCT ACTCTCTCT TACCCCTTT TACCCCTCT GCACCCCTC CATCTCTCTG TACACCATG AGCTCCCTT  
 134 M A L P Y H T P L P T V L L P P P A L T A P P P C C T T T S S P Y  
 200 ACCAGAGTT TCTATGAGA AGCCCTCTC CTGGAAAT TATGCGCCA TCATATAGA GTTATCTAA GCGAACTCC AGCTCTCTG CCGACACCA  
 267 Q E P L . R T R L P Q N I D A P S Y R S L S K O N S T P T A N T N  
 300 TATCCCTCC AGCTCTCTAC TCTTCTCAT CATGAAAT CTATATATG GACAGGAAA ATGATTAATC CTATCTCTG TCGAGCATT  
 334 M P R M C Y M S A T L C M H A N T N Y W T O K M I N P S C P O O L  
 400 GAGCCCTG TCTCTCTAC CTATCTCTG CATACAGTA TCTCTCTG GGTGGAAT CAGCTCTAG CAGAGAAA ACAAGTAAG GAGCATCT  
 434 G A T V C M T Y P T N T S M S D G G I Q O O A R E K Q V K E A I S  
 500 CCGAACTGAC CCGGGAAT AGCCCTCTC GCGCTCTAA AGCATCTAT CTCTCTAAAC TACATCTAAC CCGCTCTAC CATCTCTG TCTCTCTG  
 534 Q L T R G H S T P S P Y K G L V L S K L H E T L R T N T R L V S L  
 600 ATTATCTAC AGCTCTCTC GGTCTCTAG GGTCTCTAG CAAACCTTA CTACTCTCTG GATCTCTCT CCGCTCTAC TCGGCTTA CATCTCTATC  
 634 P N T T L T R L M E V S A Q N P T N C W M C L P L H P R P Y I S I  
 700 CCGTCTCTG ACATCTCTG CAACTCTG ACAGAAAT ACACCTCTC CGTTCTGTA GAGCTCTG TTCTCTCT GGAATCTAC CATCTCTAA  
 734 P V P E Q W M N P S T E I N T T S V L V O P L V S N L E I T H T S N  
 800 AGCTCTCTG TGTAAAT TACATCTA TAGACACAC CAGCTCTCA TGCATCTG GGTCTCTAC TCCACACCA ATAGCTCTG TACCTCTAG  
 834 L T C V K P S N T I D T T S S Q C I R M V T P P T R I V C L P S O  
 900 AATATTTT GCTCTCTG CCGTCTCTG TCTCTCTG AGGCTCTG CAGATCTAT GCTCTCTCTG TCGCTCTAT GAGCATCTAC  
 934 I F P V C G T S A Y H C L N G S E S M C F L S F L V P P M T I Y  
 1000 ACTGACAG AGTTATCTA TCACTCTG CCGTCTCTG ACACAGAG AGTCTCTCT CTCTCTCTG TTATCTCTG AGAGCTCTA GCGACTAG  
 1034 T E Q D L Y M N V V P K P H N K R V P I L P F V I R A O V L G R L G  
 1100 GTACTCTAT TCGATCTAT ACACCTCTA CTCTCTCTA CTCTCTCTA TCTCTCTA TAACTCTG CATCTCTG GGTCTCTAT CCGCTCTAC  
 1134 T G I Q S I T T S T Q F Y Y K L S Q E I N G D H E Q V T D S L V T  
 1200 CTCTCTCTG CCGTCTCTG AGTCTCTCT CAAATCTA GAGCTCTA CTCTCTCTG GCGAAAGAG GCGAACTCTG TTATCTCTA  
 1234 L Q D Q L N S L A A V V L Q N R R A L D L L T A K R O G T C L P L  
 1300 GAGAGAC GCTCTCTA TCTCTCTA TCGAAAT TCTCTCTA AGTTAGAA ATTCTCTAT GATCTCTA TAGCTCTG GAGCTCTAA  
 1334 G E E R C Y Y V N U S R I V T E K V K E I R D R I O C R A E E L Q N  
 1400 ACACGAG CCGCTCTG CCGCTCTG GGTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG  
 1434 T E R W O L L S Q W M P W V L P F L G P L A A L I L L L L P O P C  
 1500 TATCTCTG CTCTCTCT TCTCTCTG TCTCTCTG AGCTCTCTA AGCTCTCTA AGCTCTCTA AGCTCTCTA AGCTCTCTA AGCTCTCTA  
 1534 I F N L L V R F V S S R I E A V K L Q H V L Q H E P Q M E S M T K  
 1600 ATCTCTCTG GAGCTCTG CCGCTCTG AGCTCTCT CCGCTCTA TCACTCTA TCACTCTA TCACTCTA TCACTCTA TCACTCTA  
 1634 I H R Q P L D R P A S P C S D V N D I E G T P P E I S T A Q P L L  
 1700 TATCTCTA TCTCTCTA AGCTCTA GCGCTCTA GCGCTCTA GCGCTCTA GCGCTCTA GCGCTCTA GCGCTCTA  
 1734 C P N S A O S S  
 1800 TAGCTCTAT TCTCTCTA ACAGCTCT CCGCTCTA GGTCTCTG TCACTCTAT CAGCTCTAA CATCTCTG GCGCTCTG TCACTCTG  
 1900 CCAATCTAG AGCTCTCTA ATCTCTAT AGGCAAT AGGCTCTA GAAATCTA ATCTCTAT GGTCTCTG ACAGCTCTG GCGCTCTG  
 2000 CCGATCTA AGCTCTCT TCACTCTG CCGCTCTG CCGCTCTG TCTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG TCTCTCTG  
 2034 Poly A signal  
 2100 AATCTCTG TCACTCTA AAAAAAAAAA  
 2134

FIG13

# FIG 14

CAGCAACCCC CTTGGGGTCC CTTCCCAATG TAUGGAGCT CTGTTTTCAC TCTATTTCAC TCTATTAAAT CATGCAACTG CACTCTCTCTG GTCCGTGTTT  
 TTATGGCTC AAGCTGAGCT TTGTTTGGC ATCCACCACT GCTGTTTGGC ACCCGTGTCT GACTTCCATC CCITTGGATC CACGAGATG  
 TCCGCTGTGC TCCTGATCCA GCACAGGGGC CCATTGCTTC TCCCAATGG GCTAAAGGCT TGCCATTGTT CCTGCACAGC TAAGTGCCTG GGTTCATCCT  
 AATCGAGCTG AACACTAGTC ACTGGGTTC ACCTGTTCTCT TCCATGACCC ATGCTCTCTA ATAGAGCTAT AACACTCACT GCATGGTCCA AGATTCCATT  
 CCTTGAATC CGTGAGACCA AGAACCCCGC GTACAGAGAC ACAAGGCTTG CCACCATGTT GGAAGCAGCC CACCACCATT TTGGAAGCAG CCGGCCACTA  
 TCTTGGAGC TCTGGGAGCA AGGACCCCGC GTACCAATTT GTGACCCAG AGGGACCTG AATCCGCAAC CATGAAGGGA TCTCCAAAGC <sup>9-9</sup>ATGGGAAC  
 GTTCCCCCG AGSCAAATAT GCCCCTAGAA CGTATTCTGG AGAATTGGGA CCATGTGAC ACTCAGAGCC TAAGAAGAA AGCATTTATA TTCTTCTGCA  
 V P P E A K M P L E R I L E N W D Q C D T Q T L R K K R F I F C S  
 GTACCGCCTG GCCCAATAT CCTCTTCAAG GGAGAGAAC CTGGCTTCTT GAGGAAGTA TAAATTATAA CATCATCTTA CAGCTAGACC TCTTCTGTAG  
 T A W P Q Y P L Q G R E T W L P E G S I N Y N I I L Q L D L F C R  
 AAGGAGGC AATGGAGTG AAGTGCCATA TGTGCAACT TCTTTTTCAT TAAGAGACAA CTCACAATTA TGTAAAGT GTGTTTATG CCTACAGGA  
 K E G K W S E V P Y V Q T F F S L R D N S Q L C K K C G L C P T G  
 AGCCTCAGA GTCCACCTCC CTACCCGAGC GTCCCTTCC CGACTCTTC CTCACTAT AAGGACCCCT CTTTAACCCA AAGGTGCCAA AAGGAGATAG  
 S P Q S P P Y P S V P S P T P S S T N K D P P L T Q T V Q K E I D  
 ACAAGGGGT AAACATGAA CCAAGAGTG CCAATATTC CCGATTATGC CCCCTCCAAG CAGTGAGAGG AGGAGATTC GGCCAGCCA GAGTGCCTGT  
 K G V N N E P K S A N I P R L C P L Q A V R G G E F G P A R V P V  
 ACCTTTCT CTCTCAGACT TAAAGCAAT TAAATAGAC CTAGTAAAT TCTCAGATA CCCTGAGGC TATATTGATG TTTTACAAGG GTTAGGACAA  
 P F S L S D L K Q I K I D L G K F S D N P D G Y I D V L Q G L G Q  
 TCTTTGATC TGACATGGAG AGATATAATG TTACTACTAA ATCAGACACT AACCCCAAT GAGAGAAGTG CCGCTGTAAAC TGACAGCCGA GAGTTTGGC  
 S F D L T W R D I M L L L N Q T L T P N E R S A A V T A A R E F G D  
 ATCTTTGGTA TCTCAGTCAG GCCAACATA GGATGACAC AGAGGAAGA ACACTCCCA CAGGCCAGCA GGCAGTTCCC AGTGTAGACC CTCATTGGGA  
 L W Y L S Q A N N R M T T E E R T T P T G Q Q A V P S V D P H W D  
 CACAGATCA GAACATGGAG ATTGGTGCCA CAACATTTG CTAACTTGG TGCTAGAAGG ACTGAGGAA ACTAGGAAGA AGCTATGNA TTACTCAATG  
 T E S E H G D W C H K H L L T C V L E G L R K T R K K P M N Y S M  
 ATGTCCACTA TACACAGGG AAGGAAGAA AATCTTACTG CTTTCTGCA CAGACTAAGG GAGGCATTGA GGAAGCATAC CTCCTGTCA CCGACTCTA  
 M S T I T Q G K E E N L T A F L D E L R E A L R K H T  
 TTGAAGGCA ACTAATCTTA AAGGATAAGT TTACTACTA GTCAGTGCA GACATTAGAA AAAAATCTCA AAGTCCGTC TTAGGCTCG AACAAACTT  
 E G Q L I L K D K F I T Q S A A D I R K K L Q K S V L G S E Q N L  
 AGAACCCCTA TTGAACCTGG CAACCTCGGT TTTTATAT AGAGATCAGG AGGAGCAGG AGAATGGGAC AAATGGGATA AAAAAAAG GGCCACCGCT  
 E T L L N L A T S V F Y N R D Q E E Q A E W D K W D K K R A T A  
 TTAGTCATGG CCTCAGGCA AGCGACTTT GGAGGCTCTG GAAAGGGAA AAGCTGGCA AATAGGAGC CTAATAGGC TTGCTTCCAG TGCGGTCTAC  
 L V M A L R Q A D F G G S G K G K S W / A N R K P N R A C F Q C G L Q  
 AAGGACACTT TAAAGAAT TGTCCAAATA GAAATAGCC GCCCCTTGT CCATGCCCT TAGCTCAAG GAATCACTGG AAGGCCACT GCCCAGGG  
 G H F K K D C P N R N K P P P C / R P C P L R Q G N / H W K A H C P R G  
 ATCAAGATAC TCTGATCAG AAGCCATTA CCAGATGATC CAGCAGCAG ACTGA  
 S R Y S E S E A I N Q M I Q Q Q D

W0 99/0260

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PCR 98/01460

FIG 15

GGACCCGTAG TATGGGTAA TCCCTCCGG GAAACCAAGC CCCAGTACTC AGAAGAGAA ATAGATGGG GAACCTCAGG AGGACATGOT TTCTCCCTCT  
 100  
 GIPVVWGNPLRETKPEYSEEEIEWGTSRGHGF LPS  
 34  
 CAGGATGGCT AGCCACTGAA GAAGGAJAAA TACTTTTGGT GGCAGCTAAC CAATGGAAAT TACTTAAAC CTTTACGAA ACCTTCCACT TAGGCATTGA  
 200  
 G W L A T E E G K I L L L A A N Q W K L L K T L Q Q T P L L G I D  
 67  
 TAGCACCCAT CAGATAGCCA AATCATATT TACTGGACCA GGCCTTTTCA AACTATCAA GCAGATAGTC AGGGCTGTG AAGTCTGCCA AAGUATNAT  
 300  
 S T E Q I A K S L P T G P G L P K T I K Q I V R A E V E Q R M N  
 100  
 CCCCTGCCTT ATGGCCAAGC TCCTTCAGGA GAACAAAGAA CAGGCNATTA CCCAAGAGAA GACTGGCAAC TAGATTTTAT CCACATGCCA AATCAGCAGG  
 400  
 P L P Y R Q A P S G E Q R T G N Y P R E D W Q L D P I H M P K S Q G  
 134  
 GATTTCAGTG TCTACTAGTC TGGTAGATA CTTTCACTGG TTGGGCAGAG GCCTTCCCT GTAGGACAGA AAGTTTCCA GAGGTATTA AGGCACTAGT  
 500  
 F Q C L L Y W V D T F T G W A E A P P C R T E K F Q E V I K A L V  
 167  
 TCATGAAGTA ATTCCAGAT TGGACTTCC CTGAGGCTTA CAGAGTGACA ATGTCTCTGC TTTCAGGCCC ACAGTAAGCC AGGGAGTATC CCAGGCGTTA  
 600  
 H E V I P R P G L P G L Q S D N G P A F K A T V T Q G V S Q A L  
 200  
 GGTATAGAAAT ATCACTTACA CTGCACCTAG AGGCACAAAT CCTCAGGGA GGTTCAGAA ATGAACAC TCAACGACA TCTAACAAG CTAAACCCAGG  
 700  
 Q I E Y H L H C T . R P Q S S G K V E K M K T L K R H L N K L T Q E  
 234  
 AATCCACTT CGCATGGTCT GCTCTGTGT CTATAGCTT ACTAAGATC CAAACTCTC CCCAAAGGC AGGACTTAGC CCATACAGAA TCTGTATAGG  
 800  
 T H L A W S A L L S I A L L R I Q N S P Q K A G L S P Y R M L Y G  
 267  
 AGGTCTCTC CTAAACCAATG ACCTTCTGCT TGACCAAGAG ATGGCAACT TAGTTCAGA CATCACCTCC TTAGCCAAAT ATCAACAAGT TCTTAAACA  
 900  
 R S F L T N D L L L D Q E M A N L V A D I T S L A K Y Q Q V L K T  
 300  
 TTACAAAGAG CCTGTCCCC AGAGGAGGGA AAGAAATAT TCCACCTGG TGTATGTA TTAGTCAAGT CCCTTCCCTC TAATTCGCCA TCCCTAGACA  
 1000  
 L Q G A C P R E E G K E I F H P G V M V L V K S L P S M S P S L D T  
 334  
 CATCTGGGG AGGACCTTAC CCAGTCAATT TATCTATCCC AACTGCGGT AAGTGGCTG GAGTGGAGTC TTGGATACAT CACACTCGAA TCMAACCTG  
 1100  
 S W G G P Y P V I L S I P T A V K V A G V E S W I H H T R I K P M  
 367  
 GATATGCGG AAGGAACCG AATATCCAGG GGACAAAGCT AGCTATTCT TTAACTCTT AGAGATCTG TCCCTGCTCT TCMAAGCAACA ACCGTGA  
 1197  
 I L P K E P E N P G D N A S Y F F E P L E D L C L L P K Q Q P  
 398



FIG 16

100 GAGAGGCA GGTATGTTG GGTGAGGAG AGGAGGAG GGTAGAGAA AGGAGGAA GTGAGGAA GAAAGAGAA GAGAGAGAA  
 E N S S I S W L A E V G K D S K K . R K K G E S Q R K K K R E E E T  
 200 GAGAGGCA GGTAGAGGAG GAGAGAGTA GTAGAGAA AGGAGGAG GGTATGTTG GTATGAGGAG GGTATGTTG GTATGAGGAG  
 K K N L K R E R S S K E K T V Y P I P L K A R V N F C L P S Q G I  
 300 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 F P L C G T S T Y I C L P T N W T G T R T L V F L S P N I N I A P  
 400 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 G N Q T L L V P V K A K V R Q C R A I Q L I S L F I G L G M A T A T  
 500 GAGAGGAG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 G T G I A G L S T S L S Y Y H T L S K N F S D S L Q E I M K S I L  
 600 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 T L Q S Q L D S L A A H T L Q N R R G P H L L T A F K G G L C T P  
 700 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 L G E C C F Y T N Q S G I V R D A T W H L Q E R A S D I R Q C L S  
 800 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 N S Y T N L W S W A T W L L P F L G P H A A I L L L L T F G P C I  
 900 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 F K L L V K F V S S R I E A I K L Q H V L Q M E P Q M S S T N N F  
 1000 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 Y Q G P L E R S T G T S T S L E I P L W K T L Q L Q G P F F A P I Q  
 1100 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 Q E V A R A V I G Q I P N S S W G V L F R G G I E E . A C W Q P  
 1200 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 H S P R W I S V P P Q P W C P L W P C L R S P S A C H C T V G A S  
 1300 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 P W A G Q G R S Q L P Q L A G R Y G G R D A G G N Q G C A W R L R A  
 1400 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 S H S S R W A W A R R A P H S O S E G L S T W A R Q H L C S T S S  
 1500 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 L G L S C L P R G A G L R E H A A C P C L S P P P R R G F L H S P  
 1600 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 S F P D K H H P L S T V P S P I N H P R V E E C G H T A R D W Q A V  
 1700 GTATGTTG GTATGAGGAG GGTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG GTATGTTG  
 P L A A L V R D P L R E A S W A P E S G G D L E N L Y V L R D C

GTATGTTG  
 K Y T N Q H